



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,288	08/06/2001	Hubert T. McGovern	OMG/129/US	9047

2543 7590 06/26/2003

ALIX YALE & RISTAS LLP
750 MAIN STREET
SUITE 1400
HARTFORD, CT 06103

EXAMINER

SCHIFFMAN, JORI

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 06/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,288

Applicant(s)

MCGOVERN ET AL.

Examiner

Jori R. Schiffman

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8,10-32,34-42,44-48,50-55,57-64,66-97,99-104,106-110,113 and 119 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

Continuation of Disposition of Claims: Claims pending in the application are 1-8,10-32,34-42,44-48,50-55,57-64,66-97,99-104,106-110,113 and 119.

DETAILED ACTION

Note: Applicant should note that amended claims 23, 34, and 45 were mistakenly numbered 24, 35, and 46, respectively, in the clean copy of the claims submitted in the Amendment filed on December 9, 2002. Since applicant must send in a new revised set of claims with the next response, according to new "Amendments in a Revised Format Now Permitted" notice, the examiner would like to remind applicant to double check the claim numbering so all errors are eliminated and no claims are duplicated or missing.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-8, 10-12, 14-18, 20-22, 34, 36-40, 42, 44, 45, 48, 50-52, 55, 57-61, 64, 66-73, 80-86, and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasaki (US 6000892) in view of De Caro (US 4959938).

Regarding claims 1, 3-8, 11, 12, 14-18, 20, 22, 36-40, 42, 44, 45, 48, 51, 52, 55, 58-61, 64, and 67, Takasaki discloses a screw shaft and head, the head provided with a top surface 2 being able to receive a tool, a bottom surface having a v-shaped undercut 7, the undercut having a conical surface that connects the lip with a conical side of the head, a crown that extends around the perimeter of the head and extends beyond the lower surface of the head thereby defining an open volume between the lower edge of the

crown and the shaft of the screw and forming a recessed region between the lower edge of the crown and the shaft of the screw, the shaft provided with a substantially cylindrical threaded upper region 5 located proximate the head and a substantially cylindrical threaded lower region 4 near a distal end of the screw, the distal end having a tip 3, and the number of threads per unit length in the upper region exceeding the number of threads per unit length in the lower region. Takasaki further discloses the thread pattern of the lower region being symmetrical, and the tip being a gimlet tip having an included angle from about 20° to about 30° (col. 2, l. 17-18). Takasaki also discloses the conical surface of the v-shaped undercut slanting away from the lip toward the axis of the shaft at an angle of approximately 45° . Takasaki fails to disclose the shaft having a cross sectional area in the upper region greater than the cross sectional area of the shaft in the lower region. De Caro teaches a screw with a shaft having a cross sectional area in the upper region Z greater than the cross sectional area of the shaft in the lower region Y. It would have been obvious at the time the invention was made to a person of ordinary skill in the art to construct the upper region with a greater cross-sectional area than the lower region to secure the structure in place and resist any uplifting wind forces (col. 4, l. 63-66).

As to claims 10, 21, 31, 34, 50, 57, 66, 68-73, 80-86, and 93 modified Takasaki discloses the claimed screw as above except for the upper region having an inverted buttress thread configuration. De Caro teaches a screw having an upper region with an inverted buttress configuration to secure the screw into the surface. It would have been obvious at the time the invention was made to a person of ordinary skill in the art to modify Takasaki's screw so the upper region has a buttress thread as disclosed in De

Art Unit: 3679

Caro to better secure the screw into the surface so it is less likely to rotate, and therefore less likely to loosen.

3. Claims 2, 13, 23-28, 30, 32, 35, 46, 53, 62, 94-97, 99, 106-110, and 119 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasaki (US 6000892) in view of De Caro (US 4959938) as applied to claims 1, 12, 34, 45, 52, and 59 above, and further in view of Hsing (US 6045312).

Regarding the claims, modified Takasaki discloses the claimed screw except for the upper region having twice as many threads per unit length than the lower region. Hsing teaches a screw with the upper region having twice as many threads per unit length than the lower region. It would have been obvious at the time the invention was made to a person of ordinary skill in the art to provide the upper region of Takasaki's screw with twice as many threads as the lower region as disclosed in Hsing so less torque is required to install the screw (col. 4, l. 55-56).

4. Claims 19, 41, 47, 54, 63, 74-79, 87, and 101-104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasaki (US 6000892) in view of De Caro (US 4959938) as applied to claims 12, 34, 45, 52, 59, and 68-73 above, and further in view of Dreger (US 5020954).

Modified Takasaki discloses the claimed screw except for the top surface of the head being provided with a square opening. Dreger teaches a screw with a head having a square opening for accommodating a Robertson driver (col. 5, l. 35). It would have been obvious at the time the invention was made to a person of ordinary skill in the art to change modified Takasaki's screw by adding a square opening to the head as disclosed in

Art Unit: 3679

Dreger so it can be optimally installed or removed by a Robertson driver as described in Dreger.

5. Claims 29, 100, and 113 rejected under 35 U.S.C. 103(a) as being unpatentable over Takasaki (US 6000892) in view of De Caro (US 4959938) and in further view of Hsing (US 6045312) as applied to claim 23 and 94 above, and further in view of Dreger (US 5020954).

Modified Takasaki discloses the claimed screw except for the top surface of the head being provided with a square opening. Dreger teaches a screw with a head having a square opening for accommodating a Robertson driver (col. 5, l. 35). It would have been obvious at the time the invention was made to a person of ordinary skill in the art to change modified Takasaki's screw by adding a square opening to the head as disclosed in Dreger so it can be optimally installed or removed by a Robertson driver as described in Dreger.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jori R. Schiffman whose telephone number is 703-305-4805. The examiner can normally be reached on M-Th, and every other Friday.

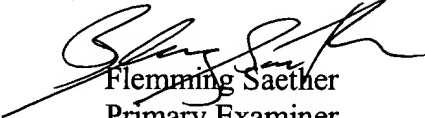
Art Unit: 3679

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-1113.

Jori R. Schiffman
Examiner
Art Unit 3679

JS
June 24, 2003


Flemming Saether
Primary Examiner